

REMARKS

In the September 7, 2005 Office Action, claims 1-23 were rejected, and the drawings were deemed objectionable. This Response amends claims 1, 3, 7, 17, 18, 21, and 22. After entry of the foregoing amendments, claims 1-23 (23 total claims; 8 independent claims; no additional claim fees due) remain pending in the application. Reconsideration of the application is respectfully requested in view of the above amendments and the following remarks.

Drawings

FIG. 1 has been amended to include a "Prior Art" legend. Please enter replacement sheet 1/3, which includes amended FIG. 1.

FIG. 2 has been amended to re-label item 201 to "Data Processing System" for consistency with the specification. FIG. 2 has also been amended to delete reference numbers 218R and 218L. Please enter replacement sheet 2/3, which includes amended FIG. 2.

Applicant requests the withdrawal of the drawing objections in view of these changes.

§112 Rejections

Claim 1 stands rejected under 35 U.S.C. §112, second paragraph as being indefinite. In particular, claim 1 stands rejected for its recital of "the stereoscopic image points" in line 10 of the claim. Applicant traverses this rejection. As an initial matter, Applicant submits that claim 1 is definite as originally written and that the §112 rejection of claim 1 for the recital of "the stereoscopic image points" is improper (Applicant acknowledges that the recitation at issue may have rendered claim 1 objectionable). Nonetheless, claim 1 has been amended to address this objection. Accordingly, Applicant requests the withdrawal of the associated §112 rejection of claim 1.

Claims 1, 7, 17, 18, 21, and 22 stand rejected under 35 U.S.C. §112 as being incomplete for omitting essential structural cooperative relationships of elements. In particular, the Office alleges that one skilled in the art would be unable to determine whether the claims refer to a single "at least one aperture" or to multiple separate and distinct "at least one apertures." Applicant traverses this rejection, and submits that one skilled in the art would be able to determine the scope of the claims when reading the claims in conjunction with the specification. Nonetheless, in the spirit of speedy prosecution, claims 1, 7, 17, 18, 21, and 22 have been amended to specifically clarify that each of the left and right modules comprises a respective

aperture. No new matter has been presented, and support for this clarification can be found in Applicant's specification at, e.g., FIG. 3 and Paragraph 0022. Regarding the language "at least one aperture," Applicant's specification (at Paragraph 0022) specifies that each module may use any number of apertures arranged in any manner. For ease of claiming and for the sake of clarity, claims 1, 7, 17, 18, 21, and 22 have been amended to recite "an aperture" rather than the equivalent "at least one aperture." Applicant notes that the word "comprising" in the preamble of these claims by definition contemplates at least one aperture, one or more apertures, or an aperture (as recited).

In view of the above amendments, claims 1, 7, 17, 18, 21, and 22 fully comply with the requirements of §112, and Applicant requests the withdrawal of the §112 rejection of those claims.

Claims 2-6, 8-10, 19, and 20 stand rejected under 35 U.S.C. §112, second paragraph, as being dependent upon rejected base claims. For the reasons discussed above, these claims now fully comply with §112, and Applicant requests the withdrawal of the §112 rejection of those claims.

§102 Rejection

Claims 1-16 and 21-23 stand rejected under 35 U.S.C. §102(e) as being anticipated by Kakizawa, USPN 6,580,556 (hereinafter "Kakizawa"). Applicant traverses this rejection.

Kakizawa generally discloses a system for viewing a stereoscopic image pair through a plate having a single aperture, as plainly shown in FIG. 1. Kakizawa's FIG. 2 depicts a videoconferencing version of the basic system, where each participant views his respective stereoscopic image pair through a respective plate having a single aperture. In this videoconferencing version, a stereoscopic image pair of each participant is captured by two cameras (reference numbers 18a-18d) located on the participant's side of the viewing plate.

Claims 1, 7, 11, and 21-23 are all independent claims. Claim 1 is also representative of claims 7, 21, and 22. Claim 11 is also representative of claim 23. Accordingly, the following discussion of claim 1 also applies to claims 7, 21, and 22, and the following discussion of claim 11 also applies to claim 23.

Regarding claim 1, Kakizawa does not teach or suggest a display system having a left module and a right module, where each of the modules comprises an eyepiece, a display panel,

and a respective aperture located between the eyepiece and the display panel, as recited in claim 1. Notably, Kakizawa employs a plate 14 that contains only one aperture 16; this aperture 16 is utilized to create the stereoscopic image for the viewer. In contrast, claim 1 requires a respective aperture for the right module and a respective aperture for the left module (this architecture is depicted in Applicant's FIG. 3., which shows one aperture 304 per module).

Moreover, the aperture in the Kakizawa system is not located between an eyepiece and a display panel, as required by claim 1. The Office Action alleges that "special filtering lenses" mentioned in Kakizawa amount to the recited eyepieces. Applicant disagrees with this characterization of Kakizawa. In particular, the filtering lenses mentioned by Kakizawa are utilized in prior art systems, which, according to Kakizawa, are problematic. These filtering lenses are not utilized in the Kakizawa system. As depicted in Kakizawa's FIG. 1 and FIG. 2, and as explained in Kakizawa's specification, the Kakizawa system employs the single aperture itself as a viewing element and the Kakizawa system does not include a separate eyepiece per se. Notably, the Kakizawa aperture is not located between an eyepiece and the display.

For at least the above reasons, Kakizawa fails to teach each and every element of independent claims 1, 7, 21, and 22. For at least the same reasons, Kakizawa fails to teach each and every element of claims 2-6 (which variously depend from claim 1) and claims 8-10 (which variously depend from claim 7).

Furthermore, Kakizawa does not disclose or suggest the invention recited in claim 3. In particular, Kakizawa does not teach an aperture located midway between an eyepiece and a display panel. As discussed above, the Kakizawa system does not include an eyepiece. Consequently, there is no possible way for the Kakizawa system to locate its aperture relative to an eyepiece. For at least this additional reason, Kakizawa does not anticipate the invention recited in claim 3.

In addition, Kakizawa does not disclose or suggest the elimination of frame violations in the stereoscopic image, as recited in independent claims 7 and 22. The Office Action cited to Kakizawa at Column 3, Lines 1-28 to support the rejection of claims 7 and 22. Applicant, however, disagrees with this characterization of Kakizawa. A careful reading of Kakizawa reveals that it does not address frame violations as recited in claims 7 and 22. Rather, Kakizawa merely discloses the processing of video frames and the sizing of such video frames to suit the

display needs of the particular application. This excerpt of Kakizawa does not discuss the elimination of frame violations, i.e., ensuring that portions of the stereoscopic image do not unnaturally appear as overlapping the image window perimeter. For at least this additional reason, Kakizawa does not anticipate the invention recited in independent claims 7 and 22, or any of claims 8-10, which variously depend from claim 7.

The discussion of claims 7 and 22 in the immediately preceding paragraph also applies to independent claims 11 and 23. Namely, Kakizawa neither teaches nor suggests the use of display apertures to prevent frame violations as recited in claims 11 and 23. For at least this reason, Kakizawa does not anticipate the invention of claims 11 and 23. For at least the same reason, Kakizawa does not anticipate the invention of dependent claims 12-16, which variously depend from independent claim 11.

Therefore, Kakizawa does not anticipate any of claims 1-16 and 21-23, and Applicant respectfully requests the withdrawal of the §102 rejection of those claims.

§103 Rejection

Claims 17-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kakizawa in view of Applicant's alleged description of prior art. Applicant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. Applicant respectfully submits that the Office has not met all of the above criteria.

Claim 17 is an independent claim that includes two limitations discussed above: a display having left and right modules, each module having an eyepiece, a display, and an aperture located between the eyepiece and the display; and the use of the aperture to eliminate frame violations in the stereoscopic image. Claim 18 is an independent claim that includes a display having left and right modules, each module having an eyepiece, a display, and an aperture located between the eyepiece and the display. As discussed above in connection with

the §102 rejection, the primary reference Kakizawa fails to teach or suggest these limitations. Furthermore, the mere deployment of the Kakizawa system in an aircraft refueling system does not overcome these shortcomings of the Kakizawa disclosure. In other words, the proposed modification of Kakizawa does not teach or suggest each and every element of claims 17 and 18. For at least the same reasons, the proposed modification of Kakizawa does not teach or suggest each and every element of dependent claims 19 and 20.

Accordingly, for at least the above reasons, the invention of claims 17-20 is not unpatentable over Kakizawa, and Applicant respectfully requests the withdrawal of the §103 rejection of claims 17-20.


In conclusion, for the reasons given above, all claims now presently in the application are believed allowable and such allowance is respectfully requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the undersigned attorney at (480) 385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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